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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/577,176	05/31/2006	Tord Olsson	1507-1037	4307
<small>466</small> YOUNG & THOMPSON 209 Madison Street Suite 500 ALEXANDRIA, VA 22314			<small>7590</small> EXAMINER TRIGGS, ANDREW J	
			<small>3635</small> ART UNIT	PAPER NUMBER
			05/23/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/577,176

Applicant(s)

OLSSON, TORD

Examiner

Andrew J. Triggs

Art Unit

3635

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 May 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 May 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/ISD)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____
- Paper No(s)/Mail Date 4/28/2006

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Girerd, US Patent # 6,513,518 in view of James, US Patent # 4,192,287.

Regarding claim 1, Girerd teaches a panel for collecting solar radiation (Abstract) that is capable of being used on a roof as evident in Figure 4. Girerd teaches, in Figure 1, an external sheet covering (1) and insulating layer (3) and beneath those two layers a load carrying structure (2). Girerd also teaches means (4) for transporting an energy absorbing medium. Girerd does not teach that the external sheet covering is corrugated and that the insulation layer has a shape that is adapted to the corrugated covering. However, James also teaches a solar water heater collection panel (Abstract). It can be seen in Figures 1 and 4 of James that the sheet covering (5 and 51) is corrugated and that the insulation layer (10) is shaped to adapt to the corrugated covering. Corrugated roof panels are well known in the art as a typical design of a roof. One of ordinary skill in the art at the time of the invention would have been motivated to modify the external cover of Girerd with the design of James because the appearance of a corrugated panel might be the desired look for the roof. Therefore, the invention

as a whole would have been obvious to one of ordinary skill in the art at the time of the invention.

Regarding claim 2, Girerd teaches that the means for transporting an energy absorbing medium constitutes a flexible hose (Column 2, Lines 6-7). Therefore, the invention as a whole would have been obvious to one of ordinary skill in the art at the time of the invention.

Regarding claim 3, Girerd teaches, in Figure 1, the insulation layer (3) has grooves (8) for receiving the flexible hose (4). Therefore, the invention as a whole would have been obvious to one of ordinary skill in the art at the time of the invention.

Regarding claim 4, Girerd teaches, in Figure 4, the flexible hose (4) has curved portions and straight portions. Since the hose (4) sits down into the grooves (8) it would be inherent that the grooves (8) in the insulation material (3) also have curved and straight portions. Therefore, the invention as a whole would have been obvious to one of ordinary skill in the art at the time of the invention.

Regarding claim 5, Girerd teaches a roof design but does not teach that the sheet covering has a tile profile. However, James teaches, in Figure 4, a roof design that has a sheet covering (51 and 91) that has a tile like profile. With the sinusoidal design, it would give the appearance of clay tiles. One of ordinary skill in the art at the time of the invention would have been motivated to modify the roof design of Girerd with the tile design of James because the home owner might want a panel that looks as if it were made of clay tiles. Therefore, the

invention as a whole would have been obvious to one of ordinary skill in the art at the time of the invention.

Regarding claim 6, both Girerd and James teach that the hose projects above the insulating layer. Girerd teaches this in Figure 1 with the hose (4) projecting above the insulating layer (3). James teaches it in Figure 1 with the hose (6) projecting above his insulating layer (10). Therefore, the invention as a whole would have been obvious to one of ordinary skill in the art at the time of the invention.

Regarding claim 7, both Girerd and James teach that the hose projects above the insulating layer. Girerd teaches this in Figure 1 with the hose (4) projecting above the insulating layer (3). James teaches it in Figure 1 with the hose (6) projecting above his insulating layer (10). Therefore, the invention as a whole would have been obvious to one of ordinary skill in the art at the time of the invention.

Conclusion

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

5,794,611, 4,205,658, 4,201,193, 3,952,725, 7,089,706 and 4,011,856 all teach some sort of roofing panel with embedded hoses or pipes for the purpose of heating water with solar energy.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew J. Triggs whose telephone number is 571-270-

3657. The examiner can normally be reached on Monday through Thursday 7:00am - 5:30pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard E. Chilcot can be reached on 571-272-6777. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Richard E. Chilcot/
Supervisory Patent Examiner, Art
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/Andrew J Triggs/
Examiner, Art Unit 3635